



Species

Utricularia purpurascens: Need of Conservation from Kas Plateau (World's Natural Heritage Site)

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ABSTRACT

Utricularia purpurascens species is a member of family Lentibulariaceae (Bladderwort). It grows on very low nutrient soil. Soil is deficient in nitrogen and phosphorous. This species grow only on lateritic soil. So they are restricted. Now Kas plateau is included under World's Natural heritage Site. So there is tremendous pressure of tourist on Kas Plateau. Tourists are interested in search of these species. So there should be need to conserve them from Kas Plateau.

Keywords: *Utricularia*, insectivorous, kas plateau, Flowering plant.

Kingdom: Plantae

Class: Dicotyledonae

Order: Personales

Family: *Lentibulariaceae* (Bladderwort)

Genus: *Utricularia*

Species: *purpurascens* (Graham)

Common name: Net Veined Bladderwort

1. INTRODUCTION

Unique biogeographically region with high rainfall and plenty of sunlight, thick forest makes Western ghats of India remarkably rich in floral diversity. The region is also called the "Flora of Deccan". An insectivorous plant captures prey items, such as insects, spiders, crustaceans, mites, and protozoan, as a nitrogen source. Many insectivorous species live in freshwater bogs and rock outcroppings where nitrogen is not present in available form, because the pH of the

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Figure 1

Utricularia purpurascens

water is extremely acid. The forms of entrapment by these types of plants are modified leaves. These plants attract and trap prey, produce digestive enzymes, and absorb the resulting available nutrients (Lowrie 1998, Venugopal and Devi, 2003, Sharief and Murthy, 2010, Schlauer, 2011).

The beautiful greenery of Kas reservoir is located at 30 km away from Satara district. It is about 1310 m height latitude which receives 3890 to 4570 mm of rain. The humidity ranges from 60 to 70 %. The porous rock, laterite, low nutrient soil, nitrogen deficient. This place attracts the person due to different colored flowers which increases its beauty. Nearly 350 angiosperm species are enlisted from this area including 100 endemic and 50 threaten species. In the month of August, September and October the number of colorful flowers attracts the people, visitors and researchers got an opportunity to study this flora on Kas. The total 100 endemic plants are recorded like Eriocaulon, Terda, Aponogeton, Dipcadi, Urgenia, Pinda, Ceropogia which are on the way of endangered are found on this Kas plateau. Some insectivorous plants Drosera, Utricularia sp., and medicinal plants like Gela, Musali, Asparagus, Clematis, Hemidesmus, Nothopodytes, Gnidia, and Gymnema are found in this area.

2. RESULTS

Utricularia purpurascens is popularly known as Net Veined Bladderwort or Nilipapni is an insectivorous aquatic herb, up to half a meter tall (Figure 1). It has numerous narrowly linear-oblong leaves, 1-2 cm long. The scapes are erect, 15-50 cm, slender and twinning. Flowers appear well-spaced on the upper part of the raceme, with 6-12 mm stalk. The bluish purple flowers are 2-lipped. The larger lip, 1.2-1.6 cm, is net-veined with dark colored veins, and has a light colored center. The conical, straight spur is 6 mm long. Flowering: September-October.

3. DISCUSSION

It is an endemic genus which inhabits marshy places and distributed throughout the Western Ghats. It is found in the month of July and August abundantly on Kas plateau. Its structure is totally different from other insectivorous plants. It is a small herbivorous plant which shows no. of black bladders on roots as well as on back side of leaves. These bladders have elongated tubular sac like small mouth in which insect is trapped and killed with the help of digestive enzymes. The proteins and other minerals are absorbed by plants and bladders shows only skeleton of insects. The bladder, is a modification of an underwater leaf segment, is a one-way door. Fluids are absorbed during the resting stage to fill the bladder with air. There are sensitive hairs located at the edge of the trapdoor, and when stimulated they cause the valve to move due to a sudden change in electrical potential. When the trapdoor swings inward, there is a sudden inrush of water (1/460th of a second), pulling in the aquatic organism, and then the door swings into the closed position. Digestive enzymes are secreted by the surrounding tissue and preys are digested within several days. If preys are not captured, the trap resets within 30 minutes. When a bladderwort is lifted from the water, on which it floats, there is a fine crackling sound as the trapdoors are triggered. The causes of biodiversity loss are human population growth coupled with unsustainable patterns of consumption, deforestation, urban development, road laying, and habitat destruction leading to extinction (Tandon et al. 2009). The conservation of *U. reticulata* is important because it is under threat. Hence, further research is needed for *Utricularia* plant conservation.

4. CONCLUSION

The protection of the area from tourist is better way to conserve them. In-situ conservation is needed; Ex-situ conservation is not possible because they are restricted only in lateritic soil. It is our priority to protect World's Natural Heritage Site through public awareness.

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